Medicinski fakultet u Rijeci

IZVEDBENI NASTAVNI PLAN
2026/2027

Za kolegij

Practical Application of Ultrasound in Surgery and Urology

Studij:	**Medical Studies in English (R)** (izborni) Sveučilišni integrirani prijediplomski i diplomski studij
Katedra:	**Katedra za urologiju**
Nositelj kolegija:	**prof. dr. sc. Španjol Josip, dr. med.**
Godina studija:	**5**
ECTS:	**1.5**
Stimulativni ECTS:	**0 (0.00%)**
Strani jezik:	**Mogućnost izvođenja na stranom jeziku**

Podaci o kolegiju:

The goal of this course is to encounter students with basic knowledge and skill in the field of abdominal ultrasonography. Further goal is to introduce and train students how to prepare a patient for an ultrasound examination, how to recognize normal ultrasound anatomy of intra-abdominal organs, how to apply ultrasound as a method of detecting kidney, liver, bladder and testicular tumors, and how to apply ultrasound FAST procotol in the diagnosis of abdominal trauma. And also the use of interventional ultrasound and indiciations for applying ultrasound as a diagnostic and interventional method.

Popis obvezne ispitne literature:

Fučkar Ž. i suradnici, Sonografija urogenitalnog sustava I. i II. dio, Digital Point, Rijeka, 2001.

Popis dopunske literature:

Rumock C, Wilson S. - Diagnostic Ultrasound, Mosby, London, 2002.

Nastavni plan:

Seminari popis (s naslovima i pojašnjenjem):

Introduction to the course

Understanding to the aims, contents and requirements of the course.

Historical review of ultrasound

To know the brief historical development and application of ultrasound in medicine.

Thoracic ultrasound

To know the basics of thoracic ultrasound and the FASTER protocol.

Ultrasound-guided percutaneous tracheostomy

To know the basics of tracheostomy placement using ultrasound.

Retroperitoneal ultrasound

To know the basics of ultrasound imaging of the retroperitoneum.

Evaluation of bladder pathology by transabdominal ultrasound

To know the basics of bladder patholoy in transabdominal ultrasound.

Evaluation of prostate and seminal vesicle pathology by ultrasound

To know the ultrasound anatomy of the prostate and seminal vesicles and the most common pathological presentations.

Evaluation of scrotal and penile pathology by ultrasound

To know the basic ultrasound pathology of the testicles and genitals.

Ultrasound in urological emergency

To know how to use ultrasound in the diagnosis and treatment of urgent urological conditions.

The place of interventional ultrasound in urology

To know what are the indications for certain methods of interventional ultrasound and how to use them.

To know how to prepare patients for certain methods of inteventional ultrasound.

To know the “true cut” biopsy algorithm under ultrasound control.

To know the algorithm for introducing a drain under ultrasound control.

Liver and gallbladder / biliary ultrasound

To know how to place the patient in the appropriate position for examination.

To know how to show and recognize the normal ultrasound anatomy of the liver and the gallbladder.

Sonography of the pancreas and spleen

To know how the place the patient in the appropriate position for examination.

To know how to show and recognize the normal ultrasound anatomy of the pancreas and the spleen.

Renal transplant ultrasound

To know the ultrasound diagnostics of a transplanted kidney.

The role of ultrasound in vascular pathology by ultrasound I

To know the basic ultrasound imaging of the large abdominal blood vessels.

The role of ultrasound in vascular pathology by ultrasound II

To know the most common pathology of the large abdominal blood vessels.

Focus Assessment sonography

To know how the place the patient in the appropriate position form examination.

To know typical anatomical sites for assessing the presence of free fluid in the abdomen, phrenicocostal sinuses, and pericardial cavity.

To know how to recognize free fluid in the abdomen and phrenicocostal sinuses.

Interventional abdominal ultrasound

To know the basics of the interventional ultrasound.

Kidney ultrasound

To know how to place the patient in the appropriate position form examination.

To know how to show and recognize the normal ultrasound anatomy of the kidney.

Ultrasound imaging of the adrenal glands

To know the basics of the adrenal ultrasound.

Musculoskeletal ultrasound

To know how to use ultrasound in the treatment and diagnosis of pathological conditions of the locomotor system.

Point-of-care (PoCUS) ultrasound in primary care

To know how to use ultrasound in primary care.

Exam

Written test.

Obveze studenata:

Regular attendance of classes.

Be prepared for seminars.

Taking a written exam.

Ispit (način polaganja ispita, opis pisanog/usmenog/praktičnog dijela ispita, način bodovanja, kriterij ocjenjivanja):

Ostale napomene (vezane uz kolegij) važne za studente:

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SATNICA IZVOĐENJA NASTAVE 2026/2027

Practical Application of Ultrasound in Surgery and Urology

Seminari
(mjesto i vrijeme / grupa)

23.11.2026

Introduction to the course:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1881] [405] [1069] [1619]
  - PAUSU

Historical review of ultrasound:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1881] [405] [1069] [1619]
  - PAUSU

Thoracic ultrasound:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1881] [405] [1069] [1619]
  - PAUSU

Ultrasound-guided percutaneous tracheostomy:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1881] [405] [1069] [1619]
  - PAUSU

Retroperitoneal ultrasound:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1881] [405] [1069] [1619]
  - PAUSU

naslovni doc. dr. sc. Ahel Juraj, dr. med. [405] · naslovna asistentica Bukša Iva, dr. med. [1069] · asistent Jakšić Ante, dr. med., FEBU [1881] · naslovni doc.dr.sc. Sotošek Stanislav, dr.med. [1619]

24.11.2026

Evaluation of bladder pathology by transabdominal ultrasound:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1069] [173] [405] [1619] [1881]
  - PAUSU

Evaluation of prostate and seminal vesicle pathology by ultrasound:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1069] [173] [405] [1619] [1881]
  - PAUSU

Evaluation of scrotal and penile pathology by ultrasound:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1069] [173] [405] [1619] [1881]
  - PAUSU

Ultrasound in urological emergency:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1069] [173] [405] [1619] [1881]
  - PAUSU

The place of interventional ultrasound in urology:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1069] [173] [405] [1619] [1881]
  - PAUSU

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25.11.2026

Liver and gallbladder / biliary ultrasound:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1619] [173] [405] [1069] [1881]
  - PAUSU

Sonography of the pancreas and spleen:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1619] [173] [405] [1069] [1881]
  - PAUSU

Renal transplant ultrasound:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [1619] [173] [405] [1069] [1881]
  - PAUSU

naslovni doc. dr. sc. Ahel Juraj, dr. med. [405] · naslovna asistentica Bukša Iva, dr. med. [1069] · asistent Jakšić Ante, dr. med., FEBU [1881] · naslovni doc.dr.sc. Sotošek Stanislav, dr.med. [1619] · prof. dr. sc. Španjol Josip, dr. med. [173]

26.11.2026

The role of ultrasound in vascular pathology by ultrasound I:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [173] [405] [1069] [1619] [1881]
  - PAUSU

The role of ultrasound in vascular pathology by ultrasound II:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [173] [405] [1069] [1619] [1881]
  - PAUSU

Focus Assessment sonography:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [173] [405] [1069] [1619] [1881]
  - PAUSU

Interventional abdominal ultrasound:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [173] [405] [1069] [1619] [1881]
  - PAUSU

naslovni doc. dr. sc. Ahel Juraj, dr. med. [405] · naslovna asistentica Bukša Iva, dr. med. [1069] · asistent Jakšić Ante, dr. med., FEBU [1881] · naslovni doc.dr.sc. Sotošek Stanislav, dr.med. [1619] · prof. dr. sc. Španjol Josip, dr. med. [173]

27.11.2026

Kidney ultrasound:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [405] [173] [1069] [1619] [1881]
  - PAUSU

Ultrasound imaging of the adrenal glands:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [405] [173] [1069] [1619] [1881]
  - PAUSU

Musculoskeletal ultrasound:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [405] [173] [1069] [1619] [1881]
  - PAUSU

Point-of-care (PoCUS) ultrasound in primary care:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [405] [173] [1069] [1619] [1881]
  - PAUSU

Exam:
- P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat) (16:00 - 19:45) [405] [173] [1069] [1619] [1881]
  - PAUSU

naslovni doc. dr. sc. Ahel Juraj, dr. med. [405] · naslovna asistentica Bukša Iva, dr. med. [1069] · asistent Jakšić Ante, dr. med., FEBU [1881] · naslovni doc.dr.sc. Sotošek Stanislav, dr.med. [1619] · prof. dr. sc. Španjol Josip, dr. med. [173]

Popis predavanja, seminara i vježbi:

SEMINARI (TEMA)	Broj sati	Mjesto održavanja
Introduction to the course	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)

Historical review of ultrasound	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Thoracic ultrasound	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Ultrasound-guided percutaneous tracheostomy	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Retroperitoneal ultrasound	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Evaluation of bladder pathology by transabdominal ultrasound	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Evaluation of prostate and seminal vesicle pathology by ultrasound	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Evaluation of scrotal and penile pathology by ultrasound	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Ultrasound in urological emergency	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
The place of interventional ultrasound in urology	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Liver and gallbladder / biliary ultrasound	2	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Sonography of the pancreas and spleen	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Renal transplant ultrasound	2	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
The role of ultrasound in vascular pathology by ultrasound I	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
The role of ultrasound in vascular pathology by ultrasound II	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Focus Assessment sonography	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Interventional abdominal ultrasound	2	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Kidney ultrasound	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Ultrasound imaging of the adrenal glands	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Musculoskeletal ultrasound	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Point-of-care (PoCUS) ultrasound in primary care	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)
Exam	1	P401-Katedra za maksilofacijalnu kirurgiju (predavaonica IV. kat)

ISPITNI TERMINI (završni ispit):